

**Summary of Testimony of
Kevin P. Madden, General Counsel
Shelton Cannon, Deputy Director, Office of Markets, Tariffs and Rates
Federal Energy Regulatory Commission
Before the Subcommittee on Energy Policy, Natural Resources
and Regulatory Affairs of the Committee on Government Reform
United States House of Representatives
August 2, 2001**

The Commission's fundamental premise in regulating electric markets over the past decade has been that competitive bulk power markets **B** where such markets are possible **B** are the best means of assuring that consumers pay the lowest price possible for reliable electric service. For competition to flourish, however, we need adequate supply, enough sellers, the right organizational structures in the industry, and sound market rules. It is also critical that we have in place adequate market monitoring and the capability to promptly step in and take appropriate action if markets malfunction or sellers engage in market power abuse. The Commission has taken, and continues to take, steps to address these important issues.

If we are to achieve and maintain competitive bulk power markets in the electric industry, a key structural reform necessary to support such markets is the creation of regional transmission institutions, or RTOs. These institutions will: (1) operate the interstate transmission grid on a regional basis, independent of entities that are buying and selling electricity; and (2) recognize natural wholesale electricity trading patterns, which are increasingly regional and multi-state in character. The independence of RTOs from power market participants is essential to the success of competition. The Commission continues to take steps to encourage the formation of RTOs that provide one-stop shopping and fair and non-discriminatory pricing and terms and conditions for transmission service over large regions.

Competitive bulk power markets also must be supported by effective market monitoring. This is critical to ensure that wholesale electricity prices remain just and reasonable and that markets run efficiently. Effective market monitoring entails understanding energy markets, getting the market rules right, and making sure that market participants play by the rules. The Commission has made great strides in transforming our organization from a command and control cost-of-service regulator to a market monitor capable of not only detecting abuses, but also setting the rules of the market to establish price signals and incentives that make the most efficient use of existing resources and encourage investment in new generation and transmission facilities where they are most needed. Based on our experience with the severe market dysfunctions in California and the West over the past year, we are continuing to improve our processes and capabilities in this critical area to become a more proactive, rather than reactive, market monitor. RTOs can help us in this important function.

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I. Overview

Mr. Chairman and Members of the Subcommittee:

Thank you for the opportunity to appear here today. We are pleased to offer testimony on current issues affecting the Nation's bulk power markets for electricity. In particular, our testimony will focus on the development of regional transmission organizations (RTOs), the changing role of the Federal Energy Regulatory Commission (Commission), and the Commission's future plans for market oversight and enforcement. The views expressed in this testimony are our own, and do not necessarily reflect those of the Commission or any one Commissioner.

A competitive market^{Bone} with adequate supply, enough sellers, the right organizational structures, and sound market rules^{Bis} is the best way to protect the public interest and ensure that consumers pay the lowest price possible for reliable electric service. For competition to flourish and bring benefits to wholesale as well as retail customers, it is critical that, RTOs, as described in the Commission's Order No. 2000, be formed. These new institutions will (1) operate the interstate transmission grid on a regional basis, independent of entities that are buying and selling electricity; and (2) recognize natural wholesale trading patterns, which are increasingly regional and multi-

state in character. The independence of RTOs from market participants is critical for the success of competition.

Market monitoring is necessary to ensure that wholesale electricity prices remain just and reasonable. Effective market oversight entails understanding energy markets, getting the market rules right, and making sure that market participants play by the rules. Based on the Commission's experience in confronting the severe market dysfunction in California and the West over the past year, the Commission has continued the process of revamping its market oversight function. We have made great strides in transforming our organization from command and control cost-of-service regulation to the more difficult role of monitoring energy markets. Not only of detecting abuses, but also proactively setting the rules of the market to establish price signals and incentives that make the most efficient use of existing resources and encourage investment in new generation and transmission facilities where they are most needed. We are continuing to improve our processes and capabilities in this critical area to become more proactive in anticipating and addressing market power issues before they create market distortions.

RTOs' market monitoring units can and should play a big role on the front lines by performing their own monitoring and analysis and reporting any suspect behavior to the Commission. These market monitoring units also could serve in an advisory role to the Commission, suggesting any market rule changes they believe necessary to improve the competitive conditions of their markets.

II. Order No. 2000 - A Vision for Regional Electricity Markets

In Order No. 2000, the Commission built upon the premise that competition in wholesale electricity markets is the best way to protect the public interest and ensure that consumers pay the lowest price possible for reliable electric service. Order No. 2000 also recognized that wholesale trading patterns have become increasingly regional and multi-state in character. In calling upon the industry to form RTOs, the Commission determined that utility-by-utility management of the interstate transmission grid was inadequate to support the efficient and reliable operation of the bulk power market and that vertically integrated utilities (those that control both generation and transmission facilities) continue to have the ability to discriminate in the provision of transmission service. The Commission found that the interstate transmission grid should be operated on a regional basis, in a manner which is independent of entities that are buying or selling electricity, if competitive wholesale markets are to flourish.

The objective of Order No. 2000 was for all transmission-owning entities, including non-public utility entities, to place their transmission facilities under the control of independent RTOs. Specifically, the Commission found that an appropriately sized and structured RTO could: (1) improve efficiencies in transmission grid management; (2) improve grid reliability; (3) remove remaining opportunities for discriminatory transmission practices; (4) improve market performance; and (5) serve as a platform for much-needed transmission pricing reform.

An appropriately sized RTO should encompass existing natural markets, internalize constraints, and expand the number of economically viable competitors within

each market by eliminating barriers to entry. Under the Commission's vision, wholesale electricity markets need to be governed by rules which ensure the independence of the transmission provider (the RTO), establish appropriate incentives to encourage competitive behavior by all market participants, and remove any incentive for transmission owners to favor their own generation over other competitive suppliers. This process is well under way. The Commission has issued numerous orders on applications submitted in compliance with Order No. 2000 from various regions in the country and continues to encourage these organizations to develop in ways that recognize regional trading patterns and minimize "seams" issues (i.e. reduce incompatibilities between neighboring RTOs).

We have learned a great deal about market design over the last several years based on our experience with bilateral electricity markets and our experience with the existing organized markets operated by the five independent system operators (ISOs): California ISO, PJM, New York ISO, ISO New England, and the Texas ISO. Experience has demonstrated the importance of designing markets correctly and shown us all too dramatically the consequences of poor market design. We continue to learn and will be working to develop market rules that incorporate the best features of our existing markets while discarding features that are flawed. But electricity markets will continue to evolve and RTOs will play a critical role in helping the Commission to fashion market rules that accommodate the changing needs of the marketplace.

III. Market Monitoring under Order No. 2000

RTOs can serve as a first line of defense in helping the Commission to oversee the proper functioning of certain energy markets and potential market power abuse. Order No. 2000 requires that RTOs monitor markets under their control. In placing this responsibility on RTOs, the Commission recognized the importance of independent market monitoring to understanding market operations in real-time, identifying and reacting swiftly to market problems, and maintaining credibility in the marketplace. The Commission has the responsibility to help protect against anticompetitive effects in electricity markets and RTOs can provide information to identify potential market power abuses. Further, market monitoring is an important tool for ensuring that regional bulk power electricity markets operate in a non-discriminatory, open, and transparent manner, and also will provide information regarding opportunities for efficiency improvements.

In Order No. 2000, the Commission granted RTO participants sufficient flexibility to tailor their own market monitoring plan to fit the corporate form of the proposed RTO as well as the types of markets the RTO will operate or administer. However, the RTO must propose a monitoring plan that contains certain standards:

- The monitoring plan must be designed to ensure that there is objective information about the markets that the RTO operates or administers and a vehicle to propose appropriate action regarding any opportunities for efficiency improvement, market design flaws, or market power identified by that information.
- The monitoring plan also must evaluate the behavior of market participants, including transmission owners in the region to determine whether their behavior adversely affects the ability of the RTO to provide reliable, efficient and nondiscriminatory transmission service.

- Because not all market operations in a region may be operated or administered by the RTO (e.g., there may be markets operated by unaffiliated power exchanges), the monitoring plan must periodically assess whether behavior in other markets in the RTO's region affect RTO operations and, conversely, how RTO operations affect the efficiency of markets operated by others.
- Independent reports on opportunities for efficiency improvement, market design flaws and market power abuses in the markets the RTO operates and administers also must be filed with the Commission and affected regulatory authorities.

In light of our requirements that the RTO have operational control over the transmission facilities transferred to it, the RTO will be in the best position to perform objective monitoring functions for the markets that the RTO operates or administers in the region. Performance of market monitoring by RTOs is not intended to supplant Commission authority. Rather it will provide the Commission with an additional means of detecting market power abuses, market design flaws and opportunities for improvements in market efficiency. Further, because market monitoring plans are required to be filed with and approved by the Commission, we will retain the ability to shape the market monitoring activities that will be performed by the RTO to ensure that they complement the Commission's ultimate responsibility to ensure just and reasonable rates in wholesale electricity markets. Moreover, as we have noted in our orders addressing various RTO applications, analysis and reports from an RTO's market

monitoring unit are to be submitted to the Commission at the same time as they are submitted to the RTO. This will ensure that the analysis and reports are not subject to "pre-approval" by the RTO prior to Commission review.

IV. Adapting Regulation to Meet the Challenges of the Marketplace

As the Commission began to implement Order No. 2000, it saw the need to redeploy staff to be more responsive to the needs of the marketplace. This reorganization reflected not only the convergence of the natural gas and electricity markets, but also the fact that, if the Commission is to rely on competitive market forces to discipline the price of natural gas and electricity, it needs to ensure that competition is working. The Commission recognized the need to devote significant resources to monitoring energy markets. The Commission combined its gas and electric program offices, as well as its economic policy office, into a single Office of Markets, Tariffs, and Rates. Within that Office, a separate division was established to identify and bring to early resolution key issues in the marketplace and to ensure consistency of gas and electric policy decisions. In addition, a division was established to focus on understanding energy markets and developing a plan for overseeing and proactively shaping a competitive energy marketplace. Finally, within our Office of General Counsel, market oversight was added to the enforcement function within the Office, and we nearly doubled the number of staff devoted to these matters.

Beginning with the signs of serious market problems in California in the Summer of 2000, the Commission undertook a nationwide fact-finding analysis of bulk power

markets. In the first Staff Report on Bulk Power Markets in November 2000, we identified that the primary problems in California and the West centered around a lack of available supply to meet demand which was caused by a variety of events and circumstances. In addition, in this report and in our second Staff Report on Bulk Power Markets, which covered the remainder of the country, we determined that some basic market rules needed to be changed. Soon after, we initiated a series of orders on California matters which responded either to emergency situations (high prices and supply shortages) or filings by California market participants or the California ISO. Through these orders we initiated a series of remedial steps which removed a variety of impediments to a competitive electric market and attempted to restore confidence and stability to the western marketplace (see attached Commission Staff Summary of Recent Commission Actions on California Electricity Markets). These measures included:

- \$ removing the requirement to buy and sell all power in the spot market
- \$ moving power purchases and sales into the long term and bilateral markets, thus removing restrictions on hedging
- \$ requiring accurate scheduling of load
- \$ ensuring independence of the regional transmission entity
- \$ establishing mitigation measures West-wide during times of inadequate supply
- \$ incenting the construction of needed generation and transmission investment as well as natural gas pipeline infrastructure in the short and long term
- \$ increasing near-term supply to the maximum extent possible
- \$ removing incentives for withholding through penalties and a must-sell requirement
- \$ requiring ISO reporting on outages and bid data

Just last week, the Commission issued an order establishing a hearing to quantify refunds under a mitigation formula for sales in California for the period of October 2, 2000

through June 20, 2001. Throughout the West, spot market transactions after June 20, 2001 are subject to other mitigation rules including as an express condition on market-based authority, a prohibition on withholding or other forms of anti-competitive bidding behavior.

The Commission's experience with the severe market dysfunctions in California and the West magnified the need for the Commission to improve its processes and capabilities as an effective market monitor and to continue to become more proactive, rather than reactive, in this critical job. Our need to understand and react to the crisis required the Commission (and others) to conduct numerous studies (often put together very quickly) to examine market conditions -- including the status of existing and new supply sources, generator outage audits, transportation constraints, natural gas prices into California, and "gray market" issues. While we learned a great deal from these studies, the focus was backward-looking as the Commission tried to determine the causes of the dysfunction. In short, we were driven by the demands of the moment, rather than being able to rely upon a forward looking, comprehensive approach to monitoring wholesale markets.

V. Market Monitoring - Where We Are Going

A year later, a measure of stability has been restored to the western marketplace (please see the attached chart on spot market natural gas and electricity prices which have stabilized due to a number of factors, not the least of which has been favorable weather conditions) and we are continuing to develop and improve our market monitoring

function based in large part on what we've learned from the California experience as well as experience in other regions of the country. The California experience has underscored the importance of market monitoring and oversight if we expect consumers to have confidence in the marketplace to protect them. As a result, we must address critical market design issues correctly, coherently, and before-the-fact if the promise of competitive wholesale electricity markets is to be fulfilled.

A. New Resources

First, we've recognized that market monitoring requires a substantial commitment of high quality resources, both in terms of information capability and human capability. To this end, we have recently unveiled our new Market Operations Resource Center, which is patterned after an energy trading floor and is designed to give the Commission near-instantaneous access to data on spot prices, projected and actual load curves, transmission constraints, market commentary, weather patterns, and other market developments. This resource allows the Commission to increase its understanding of the markets, while providing data to support our efforts to craft market rules and incentives to strengthen and further develop competitive market structures.

Second, we've increased our staffing levels and expertise devoted to the market monitoring function. We have increased staffing levels devoted to market oversight in the Office of Markets, Tariffs and Rates and the Office of the General Counsel from approximately 70 full time staffers to a current level of 103. Many of these additions came from our litigation staff and include several Ph.D. economists whose focus has been

on market structures and market power. We also have the flexibility to further reallocate staff as the need arises. We have, however, not only added numbers to the function, but have also bolstered the market monitoring staff with some of our most experienced senior staff who are now devoted to market oversight on a permanent basis. Their charge is to continue the development of a comprehensive, proactive market monitoring and enforcement program based on the elements discussed below. In addition, we've added to this group several staffers who will focus on market issues that arise in the routine docketed rate and tariff filings which come before the Commission to ensure that our focus on markets at large does not cause us to miss incremental or isolated changes in the marketplace.

Third, we have diligently pursued training of our staff to increase our understanding of the intricacies of the markets, including, e.g. training on derivatives. Similarly, we are actively recruiting people with trading experience to help us gain additional perspective on this aspect of the markets.

B. Elements of Market Monitoring

As mentioned earlier, elements of a good market monitoring proposal are evident throughout the actions we have taken to date in California and throughout the West. A good market monitoring plan couples proactive market rule design and enforcement of those rules with a willingness to modify and adapt those rules to the changing needs of the marketplace. Specifically, we envision market monitoring as a continuous and on-going exercise in studying and understanding energy markets while ensuring that market

participants follow the market rules, with the ultimate objective of ensuring the availability of ample supply coupled with the ability of customers to respond to changes in price. We want to facilitate the development of market rules that are known, transparent, and non-discriminatory. The aim should be to protect competition rather than competitors. Thus our investigations into the market will not be limited to finding someone who may have broken a rule, but will focus on finding rules that are broken and need to be fixed. The Market Observation Resource Center will be a useful tool to enable us to evaluate the competitiveness of markets and find the broken rules, i.e. those rules that permit (or may even incent) anti-competitive behavior.

When designed properly, market rules will establish price signals and incentives that make the most efficient use of existing resources and stimulate investment in new generation and transmission facilities where they are most needed. Good market rules will function as road signs, signaling appropriate speed limits, stopping and yield points, who has the right of way, and where it is acceptable to park. They rightly include such things as pricing and cost recovery mechanisms and should be developed to reward pro-competitive behavior while attacking the bottom line of market participants who choose to engage in anti-competitive behavior. Once the elements of a competitive market can have an adequate amount of supply, enough sellers, and market rules that remove barriers to entry and protect competition are in place, anti-competitive behavior such as physical or economic withholding of supply (in the hope of artificially driving up prices) largely

becomes irrelevant, as other sellers will readily take the place of any one market participant opting not to sell.

Along with developing adequate market structures and rules, there remains a corollary enforcement or Acop on the beat@function within the realm of market monitoring. As market monitors, we need to be proactively working to develop markets rather than just looking to punish those who break the rules. Nevertheless, even carefully crafted market rules with incentives for good behavior will not be effective without a strong, highly visible, and vigilant enforcement program. Thus, our market monitoring function is backed up by an enforcement program where we, on our own motion or in response to complaints or requests of others, conduct investigations as needed to ensure that all market participants abide by established market rules. On an ongoing basis, the Commission undertakes investigations of allegations of market power abuse. We also need to ensure that market participants have sufficient, publicly available data to be able to detect and to file formal complaints when they suspect anti-competitive behavior, whether by electricity sellers or transmission providers. And we need to ensure that appropriate sanctions are in place when someone is found to be breaking the rules.

C. RTOs - Our First Line of Defense

As laid out in Order No. 2000, RTOs= market monitoring units can and should play a big role on the front lines both from a proactive market development perspective and from an enforcement perspective. To the extent it is fully independent from market participants, an RTO can form the first line of defense for any market monitoring

proposal and would perform its own monitoring of the markets they administer, or the markets they affect or are affected by through the collection of data and reporting of any suspect behavior to the Commission for further review and possible enforcement action. While RTOs are not permitted to be in the power business, they do of necessity operate real-time balancing markets and ancillary service markets. The RTO would also serve in an advisory role to the Commission, conducting studies and suggesting any market rule changes it believes would be appropriate to improve the competitive condition of its markets. We've already seen examples of this kind of behavior in the context of the existing ISOs, as the ISOs have formally and informally proposed necessary rules changes to improve the market or eliminate potential for abuse. There is room for greater RTO involvement in this context, both in terms of greater coordination through pre-filing discussions and formal rule change proposals. Further, where rules are broken, the objective and known criteria for penalties must be established and refined. Here again, RTOs can help. Since they are on the front lines, RTOs would be well positioned to build the case against the potentially offending market participant and file the charges, evidence, and any proposed penalty with the Commission for our review.

VI. Conclusion

The Commission has come a long way in trying to foster the development of a competitive marketplace for natural gas and electricity in this country. We know a lot more than we did even a year ago, but there is much more to learn and much that remains to be done. The role of the regulator has changed dramatically from the days of

command and control cost-of-service regulation. But as we rely more and more on competition to discipline the price that consumers pay for electricity, we remain responsible for ensuring that wholesale electricity prices are just and reasonable. That means that we have to be just as good at monitoring energy markets as we were at auditing a utility's generation costs and awarding a fair rate of return on plant investment. Effective market oversight entails understanding energy markets, ensuring the right organizational structures are in place, getting the market rules right, and making sure that market participants play by the rules. RTOs, as envisioned in Order No. 2000, will play a critical role in helping the Commission to detect instances of market power abuse and proposing changes to market rules as they are needed. In the future, it will also require that we continue to work closely with our state counterparts to maintain confidence that the marketplace is working and that competition is a good deal for American consumers.

Thank you.